



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: N.B. Cobb et al. Attorney Docket No.: MEGC121796
Application No.: 10/698,596 Group Art Unit: 1756
Filed: October 31, 2003
Title: SITE CONTROL FOR OPC

INFORMATION DISCLOSURE STATEMENT

Seattle, Washington 98101

March 11, 2004

TO THE COMMISSIONER FOR PATENTS:

Applicants are aware of the information listed in the attached form that may be material to the prosecution of the above-identified patent application.

1. X Copies of the listed publications and other information are enclosed for the Examiner's use.
2. X Pursuant to 37 C.F.R. § 1.97(b), this Information Disclosure Statement is being filed within three months of the filing date of the national application (other than a CPA), within three months of the date of entry of the national stage as set forth in 37 C.F.R. § 1.491 in an international application, before the mailing date of a first Office Action on the merits, or before the mailing date of a first Office Action after the filing of an RCE.
3. X The Commissioner is hereby authorized to charge any fees under 37 C.F.R. §§ 1.16, 1.17 and 1.18 which may be required during the entire pendency of the application, or credit any overpayment, to Deposit Account No. 03-1740. This authorization also hereby includes a request for any extensions of time of the

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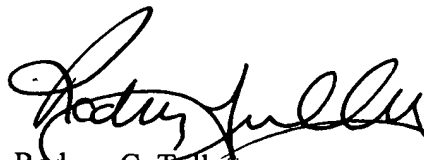
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LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

appropriate length required upon the filing of any reply during the entire prosecution of this application.

Respectfully submitted,

CHRISTENSEN O'CONNOR
JOHNSON KINDNESS^{PLLC}



Rodney C. Tullett

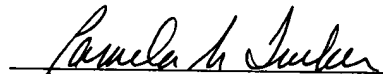
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I hereby certify that this correspondence is being deposited with the U.S. Postal Service in a sealed envelope as first class mail with postage thereon fully prepaid and addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on the below date.

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LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100



INFORMATION CITED BY APPLICANTS THAT MAY BE MATERIAL TO THE
PROSECUTION OF THE SUBJECT APPLICATION

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U.S. PATENT DOCUMENTS

*Examiner Initials	Cite No.	Document No.	Kind Code	Date (mm/dd/yyyy)	Name
_____	U1	4,762,396		08/09/1988	Dumant et al.
_____	U2	5,502,654		03/26/1996	Sawahata
_____	U3	5,655,110		08/05/1997	Krivokapic et al.
_____	U4	5,723,233		03/03/1998	Garza et al.
_____	U5	5,825,647		10/20/1998	Tsudaka
_____	U6	5,879,844		03/09/1999	Yamamoto et al.
_____	U7	6,016,357		01/18/2000	Neary et al.
_____	U8	6,049,660		04/11/2000	Ahn et al.
_____	U9	6,077,310		06/20/2000	Yamamoto et al.
_____	U10	6,120,952		09/19/2000	Pierrat et al.
_____	U11	6,128,067		10/03/2000	Hashimoto
_____	U12	6,187,483	B1	02/13/2001	Capodieci et al.
_____	U13	6,243,855	B1	06/05/2001	Kobayashi et al.
_____	U14	6,249,904	B1	06/19/2001	Cobb
_____	U15	6,263,299	B1	07/17/2001	Aleshin et al.
_____	U16	6,269,472	B1	07/31/2001	Garza et al.
_____	U17	6,301,697	B1	10/09/2001	Cobb
_____	U18	6,370,679	B1	04/09/2002	Chang et al.
_____	U19	6,425,117	B1	07/23/2002	Pasch et al.
_____	U20	6,453,452	B1	09/17/2002	Chang et al.

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CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{LLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100

_____	U21	6,453,457	B1	09/17/2002	Pierrat et al.
_____	U22	6,467,076	B1	10/15/2002	Cobb
_____	U23	6,499,003	B2	12/24/2002	Jones et al.

FOREIGN PATENT DOCUMENTS

*Examiner Initial	Cite No.	Document No.	Kind Code	Publication Date (mm/dd/yyyy)	Country	English Abstract Provided	Translation Provided
_____	F1	09319067	A	12/12/1997	JP	X	
_____	F2	WO 01/65315	A2	09/07/2001	WO		

OTHER INFORMATION

(Including Author, Title, Date, Pertinent Pages, Etc.)

*Examiner Initial	Cite No.	
_____	O1	Cobb, N., and Y. Granik, "Model-Based OPC Using the MEEF Matrix," <i>Proceedings of SPIE, Vol. 4889: 22nd Annual BACUS Symposium on Photomask Technology</i> , Monterey, Calif., Sept. 30-Oct. 4, 2002, p.147.
_____	O2	Cobb, N., and A. Zakhor, "Experimental Results on Optical Proximity Correction With Variable Threshold Resist Model," <i>Proceedings of SPIE, Vol. 3051: Symposium on Optical Microlithography X</i> , Santa Clara, Calif., Mar. 10-14, 1997, pp. 458-468.
_____	O3	Cobb, N., and A. Zakhor, "Fast, Low-Complexity Mask Design," <i>Proceedings of SPIE, Vol. 2440: Symposium on Optical/Laser Microlithography VIII</i> , Santa Clara, Calif., Feb. 22-24, 1995, pp. 313-327.
_____	O4	Cobb, N., and A. Zakhor, "Fast Sparse Aerial Image Calculation for OPC," <i>Proceedings of SPIE, Vol. 2621: 15th Annual BACUS Symposium on Photomask Technology and Management</i> , Santa Clara, Calif., Sept. 20-22, 1995, pp. 534-545.
_____	O5	Cobb, N., and A. Zakhor, "Large Area Phase-Shift Mask Design," <i>Proceedings of SPIE, Vol. 2197: Symposium on Optical/Laser Microlithography VII</i> , San Jose, Calif., March 2-4, 1994, pp. 348-360.

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CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
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- _____ O6 Cobb., N., et al., "Mathematical and CAD Framework for Proximity Correction," *Proceedings of SPIE, Vol. 2726: Symposium on Optical Microlithography IX*, Santa Clara, Calif., March 13-15, 1996, pp. 208-222.
- _____ O7 Cobb, N., and Y. Granik, "Using OPC to Optimize for Image Slope and Improve Process Window," (Nov. 20, 2002), *Proceedings of SPIE, Vol. 5130: Photomask Japan*, Yokohama, Japan, April 16-18, 2003, p. 42.
- _____ O8 Granik, Y., "Generalized MEEF Theory," *Interface 2001*, November 2001.
- _____ O9 Granik, Y., and N. Cobb, "MEEF as a Matrix," *Proceedings of SPIE, Vol. 4562: 21st Annual BACUS Symposium on Photomask Technology*, Monterey, Calif., Oct. 2-5, 2001, pp. 980-991.
- _____ O10 Granik, Y., and N. Cobb, "Two-Dimensional G-MEEF Theory and Applications," *Proceedings of SPIE, Vol. 4754: Symposium on Photomask and Next-Generation Lithography Mask Technology IX*, Yokohama, Japan, April 23-25, 2002, pp. 146-155.
- _____ O11 Maurer, W., et al., "Process Proximity Correction Using an Automated Software Tool," *Proceedings of SPIE, Vol. 3334: Optical Microlithography XI*, Santa Clara, Calif., Feb. 22-27, 1998, pp. 245-253.
- _____ O12 Maurer, W., et al., "Evaluation of a Fast and Flexible OPC Package: OPTISSIMO," *Proceedings of SPIE, Vol. 2884: 16th Annual Symposium on Photomask Technology and Management*, Redwood City, Calif., Sept. 18-20, 1996, pp. 412-418.
- _____ O13 Ohnuma, H., et al., "Lithography Computer Aided Design Technology for Embedded Memory in Logic," *Japanese Journal of Applied Physics 37(12B):6686-6688*, December 1998.

Examiner

Date Considered

*Examiner: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. § 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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